



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0118; Product Identifier 2017-NM-083-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc., Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-400 series airplanes. This proposed AD was prompted by reports of arcing and smoke emanating from the windshields. This proposed AD would require a revision to the maintenance or inspection program, as applicable, to include an inspection of the windshield moisture seal for signs of cracks, erosion, wear, and other deterioration; doing that inspection and repair if necessary; and re-torquing the windshield heater terminal lugs and applying sealant to the windshield heater screw heads. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet: <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0118; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Assata Dessaline, Aerospace Engineer, Avionics and Administrative Services Section, FAA, New York ACO Branch,

1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7301; fax: 516-794-5531.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0118; Product Identifier 2017-NM-083-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

### **Discussion**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2017-18, dated May 26, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model DHC-8-400 series airplanes. The MCAI states:

There have been numerous reports of arcing and smoke emanating from the windshields. Review of these incidents

revealed that the windshield heater terminal lugs tend to loosen over time. Loose terminal lugs could create sparks that lead to burning of the lugs and, due to the excessive heat, cracking of the windshields. If not corrected, this condition could cause a loss of cabin pressure resulting in an emergency descent.

Required actions include a revision to the maintenance or inspection program, as applicable, to include an inspection of the windshield moisture seal for signs of cracks, erosion, wear, or other deterioration; doing that inspection and repair if necessary; and re-torquing the windshield heater terminal lugs and applying sealant to the windshield heater screw heads. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0118.

**Related Service Information under 1 CFR part 51**

Bombardier, Inc., has issued Service Bulletin 84-30-16, Revision A, dated September 27, 2017. This service information describes procedures for re-torquing the screws that fasten the windshield heater terminal lugs and applying sealant to the screw heads.

Bombardier, Inc., has also issued Q400 Dash 8 Temporary Revision MRB-0099, dated December 9, 2016, to Part 1 of Bombardier, Inc., Q400 Dash 8 Maintenance Requirements Manual (MRM), PSM 1-84-7. This temporary revision describes procedures for inspecting the moisture seal for the left and right windshields for signs of cracks, erosion, wear, and other deterioration.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA’s Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

### **Costs of Compliance**

We estimate that this proposed AD affects 54 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

<b>Estimated costs</b>				
<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Revision/Inspection/Re-torque/Seal	Up to 4 work-hours X \$85 per hour = \$340	\$0	Up to \$340	Up to \$18,360

We have received no definitive data that would enable us to provide a cost estimate for the on-condition repair specified in this proposed AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Bombardier, Inc.:** Docket No. FAA-2018-0118; Product Identifier 2017-NM-083-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4001 through 4524 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 30, Ice and Rain Protection.

**(e) Reason**

This AD was prompted by reports of arcing and smoke emanating from the windshields. We are issuing this AD to detect and correct loose windshield heater terminal lugs. Loose terminal lugs could create sparks that lead to burning of the lugs and, due to the excessive heat, cracking of the windshields. If not corrected, such a condition could cause a loss of cabin pressure resulting in an emergency descent.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Revision to Inspection or Maintenance Program**

Within 30 days after the effective date of this AD: Revise the maintenance or inspection program, as applicable, to incorporate the task specified in Q400 Dash 8 (Bombardier) Temporary Revision (TR) MRB-0099, dated December 9, 2016, into Part 1 of Bombardier, Inc., Q400 Dash 8 Maintenance Requirements Manual (MRM), PSM 1-84-7.

**(h) No Alternative Actions and Intervals**

After the maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative actions (e.g., inspections), intervals, may be used unless the actions and intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k)(1) of this AD.

**(i) Inspection and Corrective Action**

Within 1,600 flight hours or 12 months after the effective date of this AD, whichever occurs first, do a general visual inspection of the moisture seal on the left and right windshields for signs of cracks, erosion, wear, and other deterioration (including discoloration, warping, or missing material). If any crack, erosion, wear, or other deterioration is found, before further flight, repair the moisture seal in accordance with a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

Note 1 to paragraph (i) of this AD: Additional guidance for repair of the moisture seal can be found in PPG Aerospace Transparencies Abbreviated Component Maintenance Manual, Part Number NP-157901, dated June 16, 2015.

**(j) Re-torquing and Sealing Screws**

Within 8,000 flight hours or 60 months after the effective date of this AD, whichever occurs first: Re-torque the windshield heater terminal lug screws for the left and right windshields and apply Humiseal to the screw heads of the windshield heaters, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-30-16, Revision A, dated September 27, 2017.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; fax: 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

**(l) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-18, dated May 26, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0118.

(2) For more information about this AD, contact Assata Dessaline, Aerospace Engineer, Avionics and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7301; fax: 516-794-5531.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet: <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Renton, Washington, on February 21, 2018.

Michael Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

[FR Doc. 2018-04149 Filed: 2/28/2018 8:45 am; Publication Date: 3/1/2018]